Amendments to the Claims

Claims 1-11. (Cancelled)

12. (New) A rotor for a turbo machine, in particular for a gas turbine, comprising a rotor base body and several rotor blades arranged over a circumference of the rotor base body, wherein the rotor base body is manufactured of an MMC composite material, and wherein the rotor blades are an integral part of the rotor, and further wherein the rotor base body is configured in a shape of a ring and the ring-shaped rotor base body comprises, in a radially internal section, at least one groove-like recess which is filled radially on an inside with fibers exhibiting tensile strength.

13. (New) The rotor according to Claim 12, wherein, several recesses filled with fibers are arranged successively in a row in an axial direction of the rotor base body.

14. (New) The rotor according to Claim 12, wherein the recess, starting from a radially internal generated surface of the rotor base body, extends radially into the radially internal section of the rotor base body and ends at a distance from a radially external section of the rotor base body, wherein the external section forms the rotor blades.

15. (New) The rotor according to Claim 12, wherein the recess has a rounded or arcuate profile on a radially external boundary of the recess.

16. (New) The rotor according to Claim 12, wherein the recess has a greater dimension in a radial direction than in an axial direction.

17. (New) The rotor according to Claim 12, wherein the recess is limited on a radially internal end by at least one cylindrical shell of matrix material.

18. (New) The rotor according to Claim 12, wherein the recess has a conical cross-section in such a manner that the recess is tapered, starting from a radially internal end, in a radial direction.

19. (New) A method for the manufacture of an integrally bladed rotor for a turbo machine, in particular for a gas turbine, comprising the steps of:

a) providing a ring-shaped rotor base body of metal matrix material with a radially internal section and with a radially external section, wherein the radially external section forms rotor blades;

b) applying at least one groove-like recess in the radially internal section of the rotor base body, in which case the recess is open on one radially internal end and ends at a distance from the radially external section;

c) filling the groove-like recess, from a radially internal direction, with fibers exhibiting tensile strength; and

d) compressing the rotor base body of metal matrix material and of the fibers exhibiting tensile strength by applying pressure at a high temperature.

20. (New) The method according to Claim 19, wherein, after filling the recess with fibers exhibiting tensile strength, the recess is closed in a gas-tight manner on the radially internal end by at least one cylindrical shell of matrix material by applying a vacuum.

21. (New) The method according to Claim 19, wherein the step of compressing is performed by hot isostatic pressing.

22. (New) The method according to Claim 19, wherein, following the compressing step, the rotor blades are machined, in particular by milling, in a region of a radially external fiber-free section.

23. (New) A rotor for a turbo machine, comprising:

a rotor base body, wherein the rotor base body is formed of an MMC composite material and wherein the rotor base body defines, in a radial internal section of the rotor base body, a recess which is filled with reinforcing fibers; and

a rotor blade formed in a radial external section of the rotor base body.

24. (New) The rotor according to Claim 23, wherein the recess does not contact the rotor blade.

25. (New) The rotor according to Claim 23, wherein a radial external end of the recess is located at a distance from the radial external section of the rotor base body.

26. (New) The rotor according to Claim 23, wherein the filled recess forms an MMC ring.

27. (New) The rotor according to Claim 23, wherein the fibers are silicon carbide fibers.

28 (New) A method for manufacturing an integrally bladed rotor for a turbo machine, comprising the steps of:

forming a groove in a radial internal section of a rotor base body formed of an MMC composite material;

filling the recess with reinforcing fibers;

compressing the rotor base body and the filled recess by applying pressure at a high temperature; and

forming a blade in a radial external section of the rotor base body.

29. (New) The method according to Claim 28, wherein the recess does not contact the rotor blade.

30. (New) The method according to Claim 28, wherein a radial external end of the recess is located at a distance from the radial external section of the rotor base body.

31. (New) The method according to Claim 28, wherein the fibers are silicon carbide fibers.